

[0053] Based on the foregoing, exemplary embodiments of the present invention may provide a clear indication of desired operations to a user, thus alleviating the burden of remembering multiple gestures associated with various operations or commands. In addition, the indicator may assist a user in making more accurate operations in many instances. For example, with the paint or draw indicator **401** shown in FIG. **4B**, the user may be provided with a more accurate position of the drawing point rather than rough finger painting. This may be particularly useful with regard to devices having relatively small touchscreens.

[0054] In addition, by using characteristics associated with the tactile input and contextual information to predict the operation(s) likely to be performed by the user, embodiments of the present invention may reduce the computational complexity associated with recognizing finger gestures, since the pool of possible gestures may be significantly reduced prior to performing the recognition process.

CONCLUSION

[0055] As described above and as will be appreciated by one skilled in the art, embodiments of the present invention may be configured as an apparatus and method. Accordingly, embodiments of the present invention may be comprised of various means including entirely of hardware, entirely of software, or any combination of software and hardware. Furthermore, embodiments of the present invention may take the form of a computer program product on a computer-readable storage medium having computer-readable program instructions (e.g., computer software) embodied in the storage medium. Any suitable computer-readable storage medium may be utilized including hard disks, CD-ROMs, optical storage devices, or magnetic storage devices.

[0056] Embodiments of the present invention have been described above with reference to block diagrams and flowchart illustrations of methods, apparatuses (i.e., systems) and computer program products. It will be understood that each block of the block diagrams and flowchart illustrations, and combinations of blocks in the block diagrams and flowchart illustrations, respectively, can be implemented by various means including computer program instructions. These computer program instructions may be loaded onto a general purpose computer, special purpose computer, or other programmable data processing apparatus, such as processor **110** discussed above with reference to FIG. **1**, or processing device **208**, as discussed above with regard to FIG. **2**, to produce a machine, such that the instructions which execute on the computer or other programmable data processing apparatus create a means for implementing the functions specified in the flowchart block or blocks.

[0057] These computer program instructions may also be stored in a computer-readable memory that can direct a computer or other programmable data processing apparatus (e.g., processor **110** of FIG. **1** or processing device **208** of FIG. **2**) to function in a particular manner, such that the instructions stored in the computer-readable memory produce an article of manufacture including computer-readable instructions for implementing the function specified in the flowchart block or blocks. The computer program instructions may also be loaded onto a computer or other programmable data processing apparatus to cause a series of operational steps to be performed on the computer or other programmable apparatus to produce a computer-implemented process such that the instructions that execute on the computer or other program-

mable apparatus provide steps for implementing the functions specified in the flowchart block or blocks.

[0058] Accordingly, blocks of the block diagrams and flowchart illustrations support combinations of means for performing the specified functions, combinations of steps for performing the specified functions and program instruction means for performing the specified functions. It will also be understood that each block of the block diagrams and flowchart illustrations, and combinations of blocks in the block diagrams and flowchart illustrations, can be implemented by special purpose hardware-based computer systems that perform the specified functions or steps, or combinations of special purpose hardware and computer instructions.

[0059] Many modifications and other embodiments of the inventions set forth herein will come to mind to one skilled in the art to which these embodiments of the invention pertain having the benefit of the teachings presented in the foregoing descriptions and the associated drawings. Therefore, it is to be understood that the embodiments of the invention are not to be limited to the specific embodiments disclosed and that modifications and other embodiments are intended to be included within the scope of the appended claims. Moreover, although the foregoing descriptions and the associated drawings describe exemplary embodiments in the context of certain exemplary combinations of elements and/or functions, it should be appreciated that different combinations of elements and/or functions may be provided by alternative embodiments without departing from the scope of the appended claims. In this regard, for example, different combinations of elements and/or functions than those explicitly described above are also contemplated as may be set forth in some of the appended claims. Although specific terms are employed herein, they are used in a generic and descriptive sense only and not for purposes of limitation.

That which is claimed:

1. An apparatus comprising:

a processor configured to:

determine a characteristic associated with one or more tactile inputs detected;

receive contextual information associated with a current state of the apparatus;

identify one or more operations likely to be requested based at least in part on the determined characteristic and the received contextual information; and

cause an indicator associated with at least one of the identified operations to be displayed, wherein the indicator illustrates a gesture associated with the identified operation.

2. The apparatus of claim **1**, wherein in order to determine a characteristic associated with one or more tactile inputs, the processor is further configured to:

determine a number of tactile inputs detected.

3. The apparatus of claim **1**, wherein in order to determine a characteristic associated with one or more tactile inputs, the processor is further configured to:

identify a finger associated with respective tactile inputs.

4. The apparatus of claim **1**, wherein in order to determine a characteristic associated with one or more tactile inputs, the processor is further configured to:

determine a force associated with respective tactile inputs.

5. The apparatus of claim **1**, wherein in order to determine a characteristic associated with one or more tactile inputs, the processor is further configured to: